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MODERN, EFFICIENT FOLDING TUBE

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MODERN, EFFICIENT FOLDING TUBE

Technical task:

Development of an efficient folding tube with the following properties

- Load-bearing but compressible "distance", given by tubular body 70 x 50 x 3, welded rectangular steel tube
- Orientation from "standing" (0°) to "folded" (max. -180°)
- Visibility, given by colour (signal yellow)
- If possible one unit in "pressed" state

Initial situation:

So-called hinged tubes are used for tool stacking in press tools for car body parts. These tubes are only required for parking the press tool. They have to be folded down in each case during pre-setting before the press. This is made possible by the gas pressure springs which hold the upper part up with their force. However, the force is not sufficient to absorb the entire weight of the pressing tools stacked on top of each other. The upper part springs down to the stop tubes. For parking, the parking tubes must be able to bear about 3 times their own tool weight.

The folding tubes have been used unchanged for over 30 years.

Solution:

Production of the individual parts using modern, efficient and partially fully automated production processes:

- tube laser part + powder coating
- Bent wire part
- Laser edge part
- Blind Rivet
- Hexagon nut

Advantages:

- Production of the individual parts by modern, efficient and partly fully automated manufacturing processes
- Optimized production and assembly process
- Option for value-added DIY for all tool shops and press shops worldwide
- Function improvement
- Significant cost savings
- 100% compatible with the current standard and all tools in stock
- Contribution to sustainability

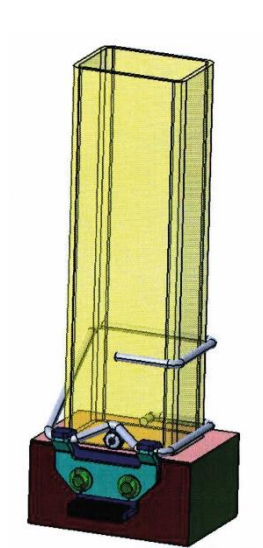


Figure 1: New folding tube

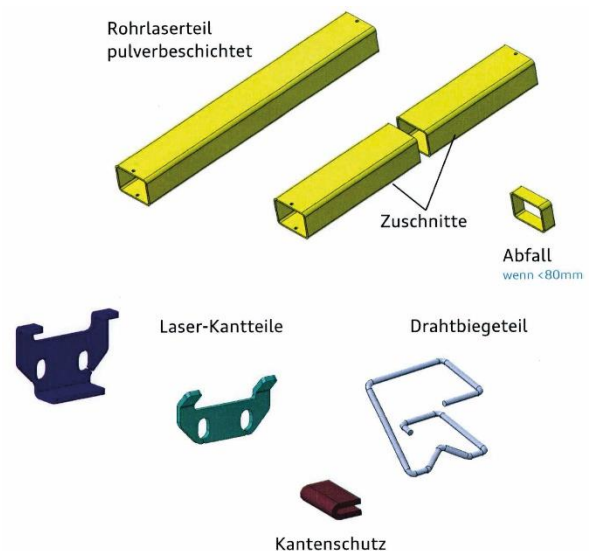


Figure 2: Individual parts for new folding tube